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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/492,373	01/27/2000	Yuzo Horikoshi	991444	9795

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[REDACTED] EXAMINER

SHOSHO, CALLIE E

[REDACTED] ART UNIT [REDACTED] PAPER NUMBER

1714

16

DATE MAILED: 04/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)	
09/492,373	HORIKOSHI ET AL.	
Examiner	Art Unit	
Callie E. Shosho	1714	

AS-16

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 23 January 2003.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1,2,4,6-10 and 14-18 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-2,4,6-10, and 14-18 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

- 4) Interview Summary (PTO-413) Paper No(s) _____ .
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

DETAILED ACTION

1. All outstanding rejections except for those described below are overcome by applicants' amendment filed 1/23/03.

The new grounds of rejection as set forth in paragraph 3 below are necessitated by applicants' amendment and thus, the following action is final.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-2, 4, 6-10, and 14-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 14, 16, and 17 have each been amended to recite "5 through 10wt.% of polymeric monomer including a polar group". It is the examiner's position that this change fails to satisfy the written description requirement under 35 USC 112, first paragraph since there does not appear to be a written description requirement for this phrase in the application as originally filed, In re Wright, 866 F.2d 422, 9 USPQ2d 1649 (Fed. Cir. 1989) and MPEP 2163.

Applicants point to Table 1 as support for this phrase. Table 1 discloses copolymers obtained from monomers, in addition to styrene and alkyl (meth) acrylate, such as (meth)acrylic acid, vinyl pyridine, 2-hydroxypropyl-N,N,N-trimethylammonium chloride acrylate, and N,N-

diallylmethylammonium chloride, in amounts of 5%, 7%, and 10%. However, the recitation of "5 through 10wt.%" as set forth in the claims as presently amended clearly encompasses any amount between 5 and 10wt.% for which there is no support in the specification. Based on the disclosure in Table 1, applicants only have support for the recitation of amounts of 5, 7, and 10% of the recited monomers (the three specific amounts) not the recitation of 5 through 10%.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 1-2, 4, 6-10, and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen et al. (U.S. 6,248,805) in view of Patel et al. (U.S. 5,977,210) and Fujisawa et al. (U.S. 5,997,136).

The disclosure is adequately set forth in paragraph 7 of the office action mailed 11/4/02, Paper No. 14, and is incorporated here by reference.

Response to Arguments

6. Applicants' arguments filed 1/23/03 have been fully considered, but they are not persuasive.

Specifically, applicants argue that the cited references do not teach or suggest copolymer obtained from the types and amounts of monomer presently claimed.

However, applicants' position is not understood given that Nguyen et al. disclose an ink jet ink comprising (i) 0.1-10% polymer which has the structure $A_xB_yC_z$ where A is a hydrophobic monomer such as alkyl (meth)acrylate, B is a hydrophobic monomer such as styrene, and C is a monomer which has a highly polar functional group including (meth)acrylic acid, (ii) solvent which is liquid at room temperature, and (iii) colorant which is a dye or pigment wherein the colorant is dispersed in the polymer. The polymer has glass transition temperature of -25 to 110 °C and is produced using emulsion polymerization. The polymer is obtained from 5-95% monomer A, 5-95% monomer B, and 0-30% monomer C.

While there are no examples that disclose ink comprising copolymer as presently claimed, "applicant must look to the whole reference for what it teaches. Applicant cannot merely rely on the examples and argue that the reference did not teach others." In re Courtright, 377 F.2d 647, 153 USPQ 735,739 (CCPA 1967). A fair reading of the reference as a whole discloses, as discussed in the preceding paragraph, clearly discloses copolymer as presently claimed.

Applicants also argue that the amounts and types of monomers from which the copolymer is obtained are important to achieve rapid drying and fixation. While there is no explicit disclosure in Nguyen et al. regarding the fixation or drying time of the ink, given that Nguyen et al. disclose copolymer obtained from the same types and amounts of monomer as presently claimed, it would have been natural for one of ordinary skill in the art to infer that the ink would intrinsically possess rapid drying and good fixation.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 703-305-0208. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Callie Shosho
Callie E. Shosho
Examiner
Art Unit 1714

CS
April 4, 2003